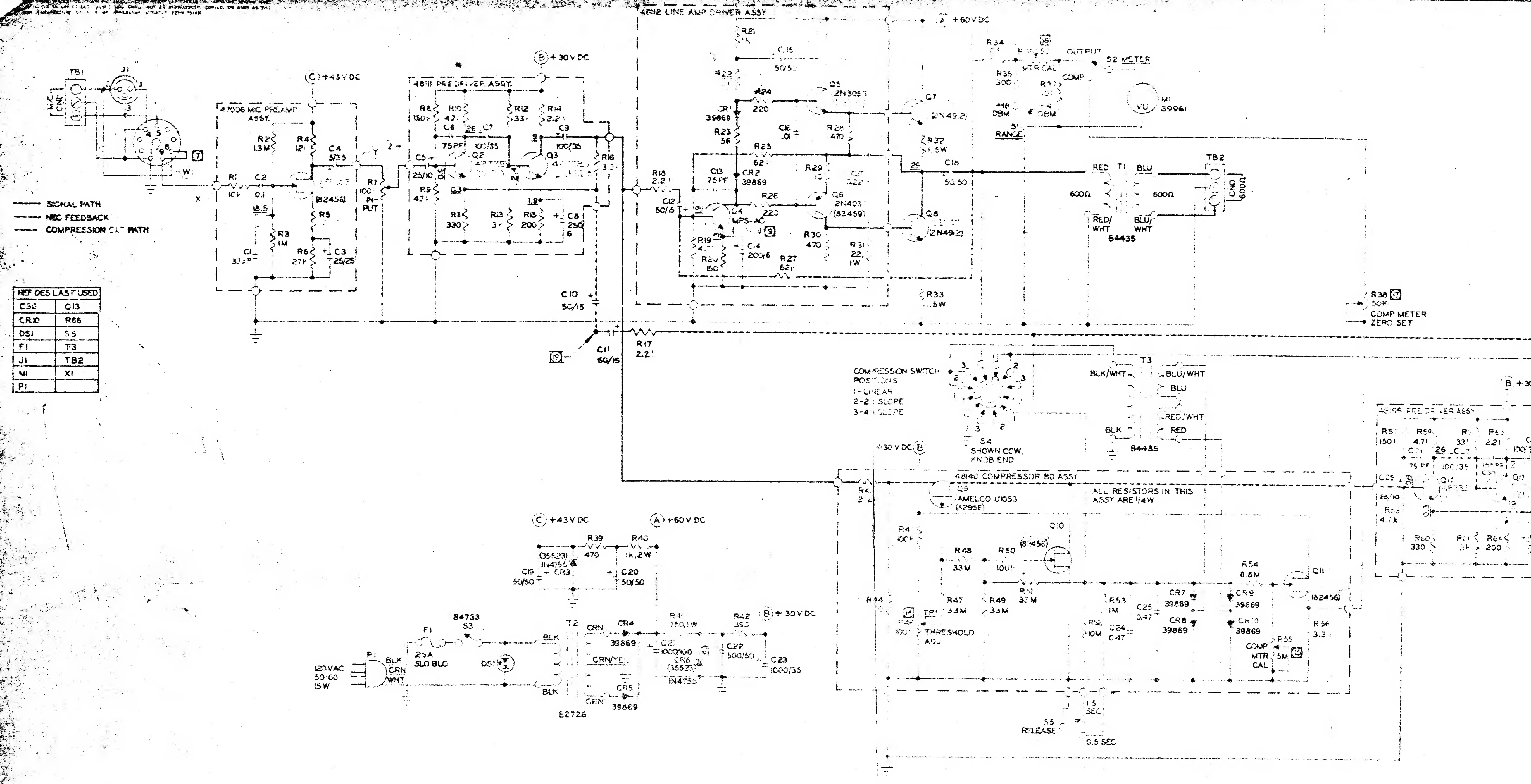

REF DES LAST USED	
C30	Q13
CR10	R66
DS1	S5
F1	T3
J1	TB2
M1	X1
P1	

P/N	DESC	QTY
48137	CHASSIS ASSY	1
48132	FRONT PANEL ASSY	1
47006	MIC PREAMP ASSY	1
39832	SCREW, 8-32 X 1/2	4
89582	HEX NUT, 8-32	4
48140	COMPRESSOR BD ASSY	1
39899	SCREW, 8-32 X 5/16	3
4811	PREDRIVER ASSY	1
4812	LINE AMP DRIVER ASSY	1
84207	COVER	1
89911	SCREW, NO 6 X 1/4	7
12875	CAUTION LABEL	1
48195	PRE DRIVER ASSY	1

19. FOR LINE USE ONLY — CUT WIRE BETWEEN C10 & C11.
18. ADJUST FOR ZERO INDICATION ON VU METER WITH OUTPUT AT +18 DBM AND RANGE SWITCH TO +18 DBM.
17. SET FOR ZERO VU INDICATED WHEN COMPRESSION OUTPUT SWITCH IS IN COMPRESSION.
16. TP1 & 2 USED FOR SELECTION OF Q9. SEE SHEET 2.
15. ADJUST FOR +2 DB ON METER AT THRESHOLD.
14. ADJUST FROM MAX CW POSITION VIEWED FROM RIGHT OF CHASSIS FOR +1 DB COMPRESSION AT +1 DBM
WITH MODE IN 4:1 POS. DC V AT TP1 SHOULD BE 5.25 V DC ±1.5 V DC.
13. ALL GROUNDS CONNECTED TO ONE COMMON CHASSIS POINT.
10. ALL DC VOLTAGES MEASURED WITH A 10 MEGOHM VTVM ±10%. (DC VOLTAGE 20%)
9. DIODES CR1,2,4,5,7-10 ARE SOLITRON SEP 68 750 MA, 200 PIV.
8. DELETED
7. Q4 IS AN MPS-A05 SELECTED FOR BETA OF MORE THAN 100 AT 10 MA.
6.
5. JUMPER FOR SINGLE ENDED USE ONLY.
4. FOR BALANCED INPUT: DISCONNECT WIRE (W) FROM POINT (X),
DISCONNECT WIRE (Y) FROM POINT (Z),
CONNECT WIRE (W) TO POINT (Z).
3. FOR TEST SPECS REFER TO DWG 46043 REF.
... APPROVED ENG SAMPLE MFD ITEM 7126. CURRENT REVISION MAINTAINED IN ENG DEPT.
... RESERVES THE RIGHT TO MAKE MINOR COMPONENT CHANGES WITHOUT NOTICE.
2. CAPACITORS IN UFD. THOSE OVER 1 UFD ARE POLARIZED ELECTROLYTICS AS SHOWN.
1. RESISTORS IN Ω, 1/2 W, 5 %.
NOTES, UNLESS SPECIFIED:

REV	DESCRIPTION
C	REV PER ECN
B	PER E.O.
A	REL FOR PROD

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MFD ITEM, 7126

D MFD ITEM

EQUIPMENT
1 OSCILLOSCOPE
2 AUDIO OSCILLATOR - KH 4100 OR EQUAL
3 DIST ANALYZER - HP 331A
4 PAD SET - KAY ELEC 470A
5 620 Ω, 2W LOAD
6 150 Ω 1/2 W INPUT TERMINATION
7 50 kHz LOW PASS FILTER

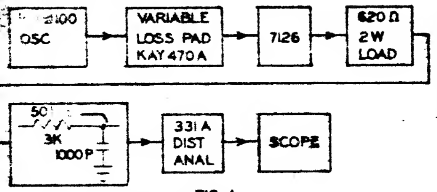

FIG. 1
TEST SETUP FOR EVALUATING 7126

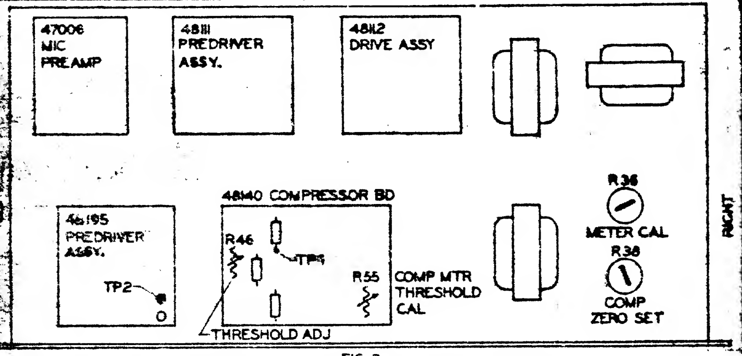

FIG. 2
LOCATION OF TEST POINTS AND CALIBRATION ADJUSTMENTS.

Calibration and Alignment Procedure

1. Set the front panel controls to the following:
   a. Input Control: "Max. CCW"
   b. Mode Switch: "Linear"
   c. Output - Compression Switch:
   d. +4dBm, +18dBm Switch: +18dB
   e. Power Switch: "Off"
   f. Release: 1.5 sec.
2. Set the trim controls to the following:
   a. Compression threshold R46 at maximum clockwise position when viewed from the right hand side of the chassis.
   b. Compression Meter Threshold R55 at mid-position.
   c. Meter Cal. R36 at mid-position.
   d. Compression Zero set R38 at mid-position.
3. Setup for test as per Figure 2.
4. Turn unit "on".
5. Set pad for -30dB attenuation using one 20dB position and one 10dB position.
6. Apply a signal of -50dBm (2.4mV) ± 2dB (1.95mV - 3.1mV) at 1kHz to the input.
7. Adjust input control until output reads +18dBm (6.2V).
8. Adjust Meter Cal control R36 such that VU meter reads "0" VU when +18dBm, +4dBm switch is set to +18dBm.
9. Reduce Input control until output reads -4dBm (0.49V).
10. Adjust R38 Compression to Zero set such that meter reads "0" VU when Output - Compression switch is set to "Compression".
11. Increase Input control until output level reads +1dBm (0.87V).
12. Set Mode Switch to 4:1 position.
13. Adjust R46 Threshold Adjustment until output drops to 0dBm (0.78V).
14. Adjust Compression Meter Threshold Adjustment so that the VU meter on the 7126 reads -2dB at threshold.

Verification of Performance

1. Adjust input level such that output is +24dBm at 1kHz (12.3V) setting the compression in the "Linear Mode".
2. Check to see if frequency response is ± 1dB (10.8V - 13.7V) from 20-20kHz without transformer.
3. Measure % T.H.D. at +24dBm (12.3V) at 1kHz. % T.H.D. should be less than 0.5%.
4. Reduce input level so that the output level is +1dBm (0.87V).
5. Set compression in 2:1 mode.
6. Switch the 10dB position on the input pad to "Out" position. The output of the compression should increase 5dB (1.38V) ± 1.5dB (1.16V - 1.64V).
7. Switch the 10dB position on the pad back to the "In" position and switch the 20dB position on the pad to the "Out" position. Output level should increase 10dB (2.45V) ± 3dB (2.06V - 2.91V).
8. Increase the input level until the output increases to 20dBm (7.8V0.
9. Measure % T.H.D. at 1kHz. % T.H.D. should be less than 1%.
10. Switch the 20dB position on the pad to "In" and reduce input level such that output is +1dBm, in linear mode.
11. Set compression in the 4:1 mode.
12. Switch the 10dB position on the pad to "Out". Output level should increase to 2.5dBm (1.05V) ± 1dB (0.93V - 1.15V).
13. Switch the 10dB position on the pad from "Out" to "In" and switch the 20dB position on the pad "Out". The output level should increase to 5dBm (1.36V) ± 2.0dB (1.1V - 1.75V).
14. Change Mode Switch from 4:1 to 2:1. Output level should increase from +5dBm (1.36V) ± 2.0dB (1.1V - 1.75V) to +10dBm (2.45V) ± 3dB (2.06V - 2.91V). Now switch back from 2:1 to 4:1. Output level should drop from +10dBm (2.45V) ± 3dB (2.06V - 2.91V) to +3.5dBm (1.55V) ± 1.5dB (1.0V - 1.4V) and slowly increase within approx. 2 seconds back to +5dBm (1.36V) ± 2.0dB (1.1V - 1.75V) as per Step No. 13.
15. Change Release Switch to 0.5 sec. and repeat #14. This time the output level will drop to +3.5dBm (1.55V) ± 1.5dB (1.0V - 1.4V) and quickly increase within approx. 0.5 secs. back to +5dBm (1.36V) ± 2.0dB (1.1V - 1.75V) as per Step #13.
16. Remove the signal from the input and plug-in a 150 ohm termination pad.
17. Turn input control CCW.
18. Set compression in Linear Mode. Measure noise. Should be less than or equal to -52dBm (1.95mV).
19. Turn input control fully CW. Noise should measure less than -43dBm (5.5mV).
20. Turn input fully CCW.
21. Measure noise in 2:1 mode. Noise should measure less than or equal to -52dBm (1.95mV).
22. Measure noise in 4:1 mode. Noise should measure less than -46dBm (3.9mV).
23. Run 24 hour reliability test.
24. At end of reliability test repeat Steps 11 - 13 in this section.

Test Points - Engineering Only

1. TP1 should lie between 5.25V ± 1.5Vdc for normal operation.
2. TP2 is used in the selection of Q_9. Signal level at TP2 should lie below -26dBm with compression set in Linear Mode and the output level at +24dBm at 1kHz. When signal is greater than -26dBm TP2 indicates that Q_9 should probably be replaced.

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REV	CHANGE	DATE	BY
	SEE SHEET 1 ... REVISION		
C	REV PER ECN		
B			
8090 A	REL FOR PROD		

APPLICATION: 7126
MFD ITEM, 7126
D MFD ITEM G
SHEET 2